

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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ART UNIT: 4177

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EXAMINER: Stuart, C. W.

TITLE: DEVICE AND METHOD FOR TEMPERING AND HUMIDIFYING GAS,  
ESPECIALLY RESPIRATORY AIR

Amendment C: REMARKS

Upon entry of the present amendments, previous Claims 21 -24 have been canceled and new Claims 25 - 26 substituted therefor. Reconsideration of the rejections, in light of the forgoing amendments and present remarks, is respectfully requested. The present amendments have been entered for the purpose of more clearly distinguishing the present invention from the prior art.

In the Office Action, Claims 21 - 24 were rejected under 35 U.S.C. § 102(b) as anticipated by the Dobitz patent. Claims 21 and 22 were rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. In particular, the language pertaining to "said humidification chamber having a sprinkler" was objected to. Additionally, Claims 21 - 22 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite for similar reasons.

As an overview to the present reply, Applicant has revised previous independent Claim 21 in the form of new independent Claim 25. New independent Claim 25 has been revised so as to incorporate certain limitations that serve to distinguish the present invention from the prior art Dobitz patent. In particular, in independent Claim 25, it is now recited that the humidification chamber has "a distribution chamber in an upper portion thereof". It is further indicated that this distribution chamber has a "sieve bottom". The filling material is positioned "below said sieve

bottom of said distribution chamber". The pumping means serves to pass fluid from the fluid reservoir into the "distribution chamber above said sieve bottom". As a result, the fluid flows downwardly "through said sieve bottom" and "into said filling material". The gas supplying means is now recited that the gas flows upwardly through the filling material "such that the fluid is moved through the gas" so as to saturate the gas with fluid. Applicant respectfully contends that these features serve to distinguish the present invention from the prior art Dobitz patent.

Applicant notes that in paragraph [0082] of the specification, it was recited that the "heated gas leaves the annulus 7". The actual terminology should be "The heated fluid leaves the annulus 7". As such, Applicant has revised paragraph [0082] accordingly.

The benefit of the distribution chamber and the sieve bottom was recited in paragraph [0082] as follows:

The heated gas leaves the annulus 7 via a sieve bottom 8 into a sprinkling type chamber 9 filled with filling material 10. In this exemplary design this filling is made of solid structured elements inheriting a huge surface and large cut-outs.

Additionally, this structure was recited in the original specification in paragraph [0095] as follows:

From the distribution chamber 7 the heated water circulates through the sieve bottom 8 into a sprinkling type chamber 9 filled with filling material. In this example the filling is made from solid structured elements with a huge surface and large cut-outs.

Importantly, the Dobitz patent fails to show this structure as defined in independent Claim 25. The present invention provides direct contact between the fluid and the gas. In contrast, the Dobitz patent provides a membrane between the fluid and gas. As such, in the Dobitz patent, the fluid is not moved through the gas. As was stated in column 4, lines 32 - 38 of the Dobitz patent:

In accordance with the invention the material of the foil 6 made such

that it will be impervious to water but pervious to water vapor. The inspiration air stream which is fed through the inspiration conduit 1 flows past the inside of the foil surface 6 and entrains the water vapor which passes through the foil surface 6 and it is therefore humidified.

In contrast, in the present invention, it is recited that, in independent Claim 25, that "gas supplying means for passing a gas through said gas inlet and into said humidification chamber such that the gas flows upwardly through said filling material such that the fluid is moved through the gas so as to saturate the gas with fluid without aerosol formation". As such, the present invention provides direct contact between the gas and the water (as opposed to gas and water vapor).

Applicant notes that there is no "distribution chamber" or "sieve bottom" described in the Dobitz patent. Additionally, there is no "filling material" through which the gas makes direct contact with the water. The location of the filling material "below sieve bottom of said distribution chamber" is not shown nor suggested in the Dobitz patent. On this basis, Applicant contends that independent Claim 25 is not anticipated by the Dobitz patent.

Applicant notes the Examiner's comments with respect to the term "sprinkler". However, Applicant's attorney can find no reference to such "sprinkler" in independent Claim 21. Applicant's attorney believes that, in the Official Action, it meant that such language was found in Claims 22 and 23, not Claims 21 and 22. Applicant has canceled Claims 22 and 23 herein in order to avoid the Examiner's objections.

Dependent Claim 26 herein corresponds to the limitations of previous dependent Claim 24.

Based upon the foregoing analysis, Applicant contends that independent Claim 25 is now in proper condition for allowance. Additionally, those claims which are dependent upon independent Claim 25 should also be in condition for allowance. Reconsideration of the rejections and

allowance of the claims at an early date is earnestly solicited. Since no new claims have been added above those originally paid for, no additional fee is required.

Respectfully submitted,

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Date

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